

A NOTE ON *PLAGIOCARPUS* Benth. (FABACEAE: BRONGNIARTIEAE)

by

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ABSTRACT

Ross, J.H. A note on *Plagiocarpus* Benth. (Fabaceae: Brongniartieae). *Muelleria* 7(4): 421–423 (1992). — *Plagiocarpus* is reviewed and the conclusions contained in an unpublished manuscript prepared by the late John Maconochie are evaluated. A lectotype of *Plagiocarpus axillaris* is selected.

INTRODUCTION

Bentham (1873) based his description of the genus *Plagiocarpus* on material from northern Australia collected by A. Cunningham from Greville Island, Regent's River, and by Schultz from Port Darwin. Bentham indicated that he had long known the plant collected by Cunningham in 1821 but could not refer it to any known genus as he 'was unable to characterise it for want of the flowers, which we have now received in Schultz's rich Port Darwin collections'.

Bentham hesitantly referred *Plagiocarpus* to the tribe Galegeae, but the genus is now placed in the tribe Brongniartieae (Crisp & Weston, 1987). *Plagiocarpus* differs from *Hovea*, *Lamprolobium* and *Templetonia*, the other Australian genera in the tribe, in having sessile mostly digitately 3-foliolate leaves, subsessile solitary axillary flowers with linear bracteoles, and seeds with nearly circular arils.

DISCUSSION

About fifteen years ago the late John Maconochie concluded that there were two species in *Plagiocarpus*, that the name *P. axillaris* applied to an uncommon taxon of restricted distribution in the Northern Territory, and that a name was required for the widespread taxon to which the name *P. axillaris* had been misapplied. He annotated specimens accordingly and submitted a manuscript for publication which was returned to him for modification after being refereed. Unfortunately he did not live to effect any changes and a revised manuscript was never published.

Plagiocarpus is one of the genera I undertook to write up for the *Flora of Australia* and I have recently had occasion to study material. I have had the benefit of locating an early draft of Maconochie's manuscript and of examining a wider range of material than he saw. Unfortunately I am not in agreement with his conclusions.

Maconochie differentiated the two species on leaflet shape, width and indumentum, and on the nature of the indumentum. Examination of the material of *Plagiocarpus* reveals a considerable amount of variation in leaflet size, shape and indumentum and in the indumentum of the stems. Leaflet shape and size are not necessarily correlated with indumentum although there is a tendency for specimens with narrow leaflets to be more densely pubescent than those with broad leaflets. Two specimens from the Port Keats area in the Northern Territory, namely *C.S. Robinson MMR 24.21* (DNA) and *G. Wightman 598 & C. Dunlop* (DNA), and the Schultz syntypes in K have stems clothed with appressed hairs up to 1 mm long and sparingly pubescent obovate-oblong or oblong leaflets and they tend to look different from much of the other material which is densely clothed with silvery-white villous hairs and has narrower leaflets which are more promi-

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Fig. 1. The known distribution of *Plagiocarpus axillaris*.

nently mucronate apically. However, these four specimens appear to represent no more than one extreme of a range of almost continuous variation.

Although the extremes look different, neither leaflet shape nor size, nor the indumentum of the leaflets or stems, either singly or in combination, separate the material into two well defined taxa. Furthermore, I have not detected any significant differences in the flowers, fruits or seeds in the material examined or in the ecological preferences that would facilitate the recognition of two taxa. Consequently I propose to regard all of the material as belonging to one variable species.

There are in K four sheets of type material, two collected by *Schultz* (639 and 639 bis) and two by *Cunningham* (192/1821 and s.n.). The Schultz syntypes tend to have shorter hairs on the leaflets and stems and to be less densely pubescent than the Cunningham specimens. Maconochie nominated and labelled the sheet of Cunningham material in K, to which is pinned a set of pencil line drawings of floral parts, as the lectotype of *P. axillaris*. This was a curious choice because the Cunningham specimens agree with the material that he referred to his new species far more closely than do the Schultz syntypes. As the Schultz material was critical to Bentham and enabled him to place this species in his new genus, I here select *Schultz* 639 in K as the lectotype of *Plagiocarpus axillaris*. Despite the fact that Port Darwin appears on the label, doubt exists that the specimen was actually collected at Darwin.

Plagiocarpus axillaris Benth. in Hook., *Icon. Pl.* 12: t.1162 (1873).

LECTOTYPE (here selected): Northern Territory, Port Darwin, *Schultz* 639 (K).

Shrub or subshrub to 1 m high, stems densely clothed with appressed to spreading hairs up to 2 mm long, the hairs tawny or more usually silvery-white. *Leaves* sessile, usually 3-foliolate but basal ones sometimes simple; leaflets elliptic-oblong to obovate-oblong, oblong or obovate, 1–2.8 cm long, 0.3–0.9 cm wide, rounded or obtuse apically with a short mucro c. 0.5 mm long or gradually narrowed apically and with a mucro up to 1.2 mm long, sparingly to densely clothed with short appressed hairs up to 1 mm long or with spreading villous silvery hairs up to 2 mm long which obscure the surface. *Stipules* not evident. *Flowers* solitary, axillary, pale yellow, subsessile or on pedicels up to 1.5 mm long; bracteoles c. 1 mm long and 0.3 mm wide, densely pubescent and easily over-

looked as is the bract; bract *c.* 0.7 mm long, inserted *c.* 0.5 mm below the bracteoles, densely pubescent. *Calyx* densely pubescent, about half as long as the corolla; 2 upper lobes 4.5–5 mm long including the tube 1.5–2.5 mm long, 3 lower lobes 2–3.5 mm long, as long as or longer than the tube. *Standard* ovate, slightly cordate basally, 10–11 mm long including a claw 2–2.5 mm long, 7.2–8.1 mm wide; wings 9.5–10.4 mm long including a claw 0.75–1.5 mm long, 3.5–4.2 mm wide; keel petals 9.5–10.5 mm long including a claw 1.2–2 mm long, 3.5–4 mm wide. *Stamen-filaments* 8.2–11 mm long. *Ovary c.* 2 mm long, glabrous, 2-ovulate; style 8.6–9.5 mm long. *Pods* sessile or almost so, obliquely ellipsoid, 1–1.1 cm long, 0.5–0.6 cm wide, 1–2-seeded, glabrous, dehiscent. *Seeds* ellipsoid, 4.5–6.2 mm long, 3–3.7 mm wide, olive-to reddish-brown, with a small aril surrounded by a collar-like lipped aril.

Plagiocarpus axillaris occurs in the Kimberley region of Western Australia and in the north-western Northern Territory where it is recorded from the Katherine Gorge National Park, the Port Keats area and Kakadu National Park (Fig. 1). It is usually associated with sandstone cliffs or scree slopes but is sometimes found on sandy soils which are the erosional products from sandstone.

REPRESENTATIVE SPECIMENS (total number examined 37):

Western Australia — Headwaters of Packsaddle Creek, Northern Carr Boyd Ranges, 8.iii.1978, T.G.Hartley 14404 (DNA,CANB,MEL,PERTH); Cockburn Range, 46 km SSE of Wyndham, 16.iii.1978, M. Lazarides 8578 (CANB,PERTH); near Solea Falls, Drysdale River National Park, 12.viii.1975, A.S.George 13755 (PERTH).

Northern Territory — Port Keats, 19.ix.1972, C.S.Robinson s.n. (DNA); Katherine Gorge National Park, 24.iii.1971, N.Byrnes 1825 (CANB,DNA,MEL,PERTH).

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